



## General Site Information

Site Name: CORNELL DUBILIER ELECTRONICS INC.  
EPA ID: NJD981557879 EPA Region: 02 Metro Statistical Area: 5460  
Street: 333 HAMILTON BLVD  
City: SOUTH PLAINFIELD State: NJ Zip: 07080  
Congressional District: 06  
County Code: 023 County Name: MIDDLESEX  
National Priority List (NPL) Status: N  
Proposed NPL Update Number: Final NPL Update Number:  
Ownership Indicator: OH  
Federal Facility Flag: N Federal Facility Docket: F  
Latitude: 4034350 Longitude: 07424510  
LL Source: R LL Accuracy:  
Incident Type: Incident Category:  
Resource and Recovery Act Facility: FMS SS ID: 02GZ  
Dioxin Tier: USGS Hydro Unit: 02030105  
Site Description:  
S

## Operable Unit Information

Site Name: CORNELL DUBILIER ELECTRONICS INC.  
EPA ID: NJD981557879  
Operable Unit ID: 00  
Operable Unit Name: SITE EVALUATION/DISPOSITION

Operable Unit ID: 01  
Operable Unit Name:

## Event Information

Site Name: CORNELL DUBILIER ELECTRONICS INC.  
EPA ID: NJD981557879  
Event Name: DISCOVERY  
Event Short Name: DISCVRY 01  
Operable Unit ID: 00  
Event Type: DS1 Event Qualifier: Event Planning Status:  
Event Generic Type: DS Event Takeover Flag:  
Event Lead: S Event Category:  
Event Actual Start: / /  
Event Actual Completion: 09/18/86

Event Name: PRELIMINARY ASSESSMENT  
Event Short Name: PA 01  
Operable Unit ID: 00  
Event Type: PA1 Event Qualifier: L Event Planning Status:  
Event Generic Type: PA Event Takeover Flag:  
Event Lead: S Event Category:  
Event Actual Start: / /  
Event Actual Completion: 09/29/86

Event Name: SCREENING SITE INSPECTION  
Event Short Name: SI 01  
Operable Unit ID: 00  
Event Type: SI1 Event Qualifier: H Event Planning Status:  
Event Generic Type: SI Event Takeover Flag:  
Event Lead: S Event Category:  
Event Actual Start: 09/18/86  
Event Actual Completion: 09/29/86

Event Name: REMOVAL ACTION  
Event Short Name: RMVL 01  
Operable Unit ID: 00  
Event Type: RV1 Event Qualifier: S Event Planning Status: P  
Event Generic Type: RV Event Takeover Flag:  
Event Lead: F Event Category: TC  
Event Actual Start: / /  
Event Actual Completion: / /

Event Name: COMBINED RI/FS  
Event Short Name: RI/FS 02  
Operable Unit ID: 00  
Event Type: CO2 Event Qualifier: Event Planning Status:  
Event Generic Type: CO Event Takeover Flag:  
Event Lead: F Event Category:  
Event Actual Start: / /  
Event Actual Completion: / /

Event Name: REMEDIAL COMMUNITY RELATIONS  
Event Short Name: REM-CR 01  
Operable Unit ID: 00  
Event Type: CR1 Event Qualifier: Event Planning Status:  
Event Generic Type: CR Event Takeover Flag:  
Event Lead: F Event Category:  
Event Actual Start: / /  
Event Actual Completion: / /

Event Name: AERIAL SURVEY  
Event Short Name: AIR SRVY01  
Operable Unit ID: 01  
Event Type: AS1 Event Qualifier: Event Planning Status:  
Event Generic Type: AS Event Takeover Flag:  
Event Lead: F Event Category:  
Event Actual Start: / /  
Event Actual Completion: / /

#### Enforcement Information

Site Name: CORNELL DUBILIER ELECTRONICS INC.  
EPA ID: NJD981557879  
Enforcement Activity Name: REMOVAL NEGOTIATIONS  
Enforcement Activity Abbreviation: RVL-NEG 01  
Enforcement Activity Type: RN01  
Enforcement Activity Sort: 030001

Enforcement Activity Lead: FE  
Enforcement Activity Actual Start: 02/04/97  
Enforcement Activity Actual Completion: 03/25/97

Enforcement Activity Name: UNILATERAL ADMIN ORDER  
Enforcement Activity Abbreviation: UNL-ORDR01  
Enforcement Activity Type: UA01  
Enforcement Activity Sort: 480001  
Enforcement Activity Lead: FE  
Enforcement Activity Actual Start: / /  
Enforcement Activity Actual Completion: 03/25/97

#### General Site Information

Site Name: CORNELL-DUBLIER-ELECTRONICS  
EPA ID: NCD003218161 EPA Region: 04 Metro Statistical Area:  
Street: 2652-DALRYMPLE-ST  
City: SANFORD State: NC Zip: 27330  
Congressional District: 03  
County Code: 105 County Name: LEE  
National Priority List (NPL) Status: N  
Proposed NPL Update Number: 00 Final NPL Update Number:  
Ownership Indicator: OH  
Federal Facility Flag: N Federal Facility Docket: F  
Latitude: 3528420 Longitude: 07910120  
LL Source: R LL Accuracy:  
Incident Type: Incident Category:  
Resource and Recovery Act Facility: FMS SS ID: 04BK  
Dioxin Tier: USGS Hydro Unit: 03030003  
Site Description:

PA  
ST  
RV

#### Alias Information

Site Name: CORNELL-DUBLIER ELECTRONICS  
EPA ID: NCD003218161  
Alias ID: 01  
Alias Name: CORNELL-DUBLIER ELECTRONICS  
Alias Street:  
Alias City: LEE Alias State: NC  
Alias Zip:  
Alias Latitude: 3528420 Alias Longitude: 07910120  
Alias Site Description:

#### Operable Unit Information

Site Name: CORNELL-DUBLIER ELECTRONICS  
EPA ID: NCD003218161  
Operable Unit ID: 00  
Operable Unit Name: SITE EVALUATION/DISPOSITION

#### Event Information

Site Name: CORNELL-DUBLIER ELECTRONICS  
EPA ID: NCD003218161  
Event Name: PRELIMINARY ASSESSMENT  
Event Short Name: PA 01  
Operable Unit ID: 00  
Event Type: PA1 Event Qualifier: L Event Planning Status:  
Event Generic Type: PA Event Takeover Flag:  
Event Lead: F Event Category:  
Event Actual Start: / /

Event Actual Completion: 10/10/86

Event Name: SCREENING SITE INSPECTION

Event Short Name: SI 01

Operable Unit ID: 00

Event Type: SI1 Event Qualifier: N Event Planning Status:

Event Generic Type: SI Event Takeover Flag:

Event Lead: S Event Category:

Event Actual Start: / /

Event Actual Completion: 04/24/91

Event Name: DISCOVERY

Event Short Name: DISCVRY 01

Operable Unit ID: 00

Event Type: DS1 Event Qualifier: Event Planning Status:

Event Generic Type: DS Event Takeover Flag:

Event Lead: F Event Category:

Event Actual Start: / /

Event Actual Completion: 03/01/84

Event Name: ~~REMOVAL ACTION~~

Event Short Name: RMVL 01

Operable Unit ID: 00

Event Type: RV1 Event Qualifier: C Event Planning Status: P

Event Generic Type: RV Event Takeover Flag:

Event Lead: F Event Category:

Event Actual Start: 07/18/88

Event Actual Completion: 07/31/88

Event Name: ADMINISTRATIVE RECORD

Event Short Name: ADMM REC01

Operable Unit ID: 00

Event Type: AR1 Event Qualifier: V Event Planning Status:

Event Generic Type: AR Event Takeover Flag:

Event Lead: F Event Category:

Event Actual Start: 05/23/89

Event Actual Completion: 05/23/89

#### Financial Information

Site Name: CORNELL-DUBLIER ELECTRONICS

EPA ID: NCD003218161

Event Type: RV1 Operable Unit ID: 00

Financial ID: 004 Financial Type: A

Financial Date: / / Financial Amount: \$250000

Event Type: RV1 Operable Unit ID: 00

Financial ID: 007 Financial Type: A

Financial Date: 07/29/88 Financial Amount: \$100000

Event Type: RV1 Operable Unit ID: 00

Financial ID: 009 Financial Type: A

Financial Date: 07/29/88 Financial Amount: \$100000

Enforcement Information

Site Name: CORNELL-DUBLIER ELECTRONICS

EPA ID: NCD003218161

Enforcement Activity Name: ~~CONSENT DECREE~~

Enforcement Activity Abbreviation: C DECREE01

Enforcement Activity Type: CD01

Enforcement Activity Sort: 610001

Enforcement Activity Lead: FE

Enforcement Activity Actual Start: / /

Enforcement Activity Actual Completion: 11/28/89

Enforcement Activity Name: ~~SECTION 107 LITIGATION~~

Enforcement Activity Abbreviation: S107-LIT01

Enforcement Activity Type: SV01

Enforcement Activity Sort: 520001

Enforcement Activity Lead: FE

Enforcement Activity Actual Start: 03/31/89

Enforcement Activity Actual Completion: 11/28/89

Enforcement Activity Name: ~~UNILATERAL ADMIN ORDER~~

Enforcement Activity Abbreviation: UNL-ORDR04

Enforcement Activity Type: UA04

Enforcement Activity Sort: 480004

Enforcement Activity Lead: FE

Enforcement Activity Actual Start: / /

Enforcement Activity Actual Completion: 03/04/88

#### General Site Information

Site Name: CORNELL-DUBILIER ELECTRONICS DIV  
EPA ID: CAD980815104 EPA Region: 09 Metro Statistical Area: 4480  
Street: 4144 GLENCOE  
City: VENICE State: CA Zip: 90291  
Congressional District: 27  
County Code: 037 County Name: LOS ANGELES  
National Priority List (NPL) Status: N  
Proposed NPL Update Number: 00 Final NPL Update Number: 00  
Ownership Indicator: UN  
Federal Facility Flag: N Federal Facility Docket: F  
Latitude: 3359255 Longitude: 11826325  
LL Source: R LL Accuracy:  
Incident Type: Incident Category:  
Resource and Recovery Act Facility: FMS SS ID: 09  
Dioxin Tier: USGS Hydro Unit: 18070104  
Site Description:

PA  
SI  
no removal  
or remediation  
achieved

#### Alias Information

Site Name: CORNELL-DUBILIER ELECTRONICS DIV  
EPA ID: CAD980815104  
Alias ID: 01  
Alias Name: INTRADECO (CKA)  
Alias Street:  
Alias City: Alias State:  
Alias Zip:  
Alias Latitude: Alias Longitude:  
Alias Site Description:

#### Operable Unit Information

Site Name: CORNELL-DUBILIER ELECTRONICS DIV  
EPA ID: CAD980815104  
Operable Unit ID: 00  
Operable Unit Name: SITE EVALUATION/DISPOSITION

#### Event Information

Site Name: CORNELL-DUBILIER ELECTRONICS DIV  
EPA ID: CAD980815104  
Event Name: DISCOVERY  
Event Short Name: DISCVRY 01  
Operable Unit ID: 00  
Event Type: DS1 Event Qualifier: Event Planning Status:  
Event Generic Type: DS Event Takeover Flag:  
Event Lead: S Event Category:  
Event Actual Start: / /

Event Actual Completion: 04/01/83

Event Name: PRELIMINARY ASSESSMENT

Event Short Name: PA 01

Operable Unit ID: 00

Event Type: PA1 Event Qualifier: L Event Planning Status:

Event Generic Type: PA Event Takeover Flag:

Event Lead: S Event Category:

Event Actual Start: 11/01/85

Event Actual Completion: 03/01/86

Event Name: PRELIMINARY ASSESSMENT

Event Short Name: PA 02

Operable Unit ID: 00

Event Type: PA2 Event Qualifier: N Event Planning Status:

Event Generic Type: PA Event Takeover Flag:

Event Lead: F Event Category:

Event Actual Start: / /

Event Actual Completion: 01/18/89

Event Name: SCREENING SITE INSPECTION

Event Short Name: SI 01

Operable Unit ID: 00

Event Type: SI1 Event Qualifier: L Event Planning Status:

Event Generic Type: SI Event Takeover Flag:

Event Lead: S Event Category:

Event Actual Start: / /

Event Actual Completion: 10/04/89



General Site Information

Site Name: CORNELL DUMP  
EPA ID: WVD980538359 EPA Region: 03  
Street: RTE-30  
City: CHESTER State: WV Zip: 26034  
Congressional District: 01  
County Code: 029 County Name: HANCOCK

PA  
SST  
RV

Event Information

Site Name: CORNELL DUMP  
EPA ID: WVD980538359  
Event Name: DISCOVERY  
Event Short Name: DISCVRY 01  
Operable Unit ID: 00  
Event Type: DS1 Event Qualifier: Event Planning Status:  
Event Generic Type: DS Event Takeover Flag:  
Event Lead: F Event Category:  
Event Actual Start: / /  
Event Actual Completion: 06/01/81

Event Name: SCREENING SITE INSPECTION  
Event Short Name: SI 01  
Operable Unit ID: 00  
Event Type: SI1 Event Qualifier: H Event Planning Status:  
Event Generic Type: SI Event Takeover Flag:  
Event Lead: S Event Category:  
Event Actual Start: 05/01/86  
Event Actual Completion: 06/03/87

Event Name: PRELIMINARY ASSESSMENT  
Event Short Name: PA 01  
Operable Unit ID: 00  
Event Type: PA1 Event Qualifier: L Event Planning Status:  
Event Generic Type: PA Event Takeover Flag:  
Event Lead: F Event Category:  
Event Actual Start: 06/03/87  
Event Actual Completion: 06/03/87

Event Name: SCREENING SITE INSPECTION  
Event Short Name: SI 02  
Operable Unit ID: 00  
Event Type: SI2 Event Qualifier: N Event Planning Status:  
Event Generic Type: SI Event Takeover Flag:  
Event Lead: S Event Category:  
Event Actual Start: 04/02/93  
Event Actual Completion: 04/02/93

#### General Site Information

Site Name: CORNELL ENTERPRISES  
EPA ID: RI0000887000 EPA Region: 01  
Street: 44 HAZEL STREET  
City: WOONSOCKET State: RI Zip: 02895  
Congressional District: 01  
County Code: 007 County Name: PROVIDENCE

#### Event Information

Site Name: CORNELL ENTERPRISES  
EPA ID: RI0000887000  
Event Name: REMOVAL ACTION  
Event Short Name: RMVL 01  
Operable Unit ID: 00  
Event Type: RV1 Event Qualifier: C Event Planning Status: P  
Event Generic Type: RV Event Takeover Flag:  
Event Lead: RP Event Category: TC  
Event Actual Start: 03/01/95  
Event Actual Completion: 06/16/95

Event Name: REMOVAL INVESTIGATION  
Event Short Name: RV-INV 01  
Operable Unit ID: 00  
Event Type: RS1 Event Qualifier: C Event Planning Status: P  
Event Generic Type: RS Event Takeover Flag:  
Event Lead: F Event Category:  
Event Actual Start: 09/30/94  
Event Actual Completion: 10/11/94

## General Site Information

Site Name: NEW BEDFORD SITE

EPA ID: MAD980731335 EPA Region: 01 Metro Statistical Area: 5400

Street: ACUSHNET ESTUARY

City: NEW BEDFORD State: MA Zip: 02740

Congressional District: 04

County Code: 005 County Name: BRISTOL

National Priority List (NPL) Status: F

Proposed NPL Update Number: 00 Final NPL Update Number: 00

Ownership Indicator: PR

Federal Facility Flag: N Federal Facility Docket: F

Latitude: 4138450 Longitude: 07055000

LL Source: R LL Accuracy:

Incident Type: Incident Category: O

Resource and Recovery Act Facility: FMS SS ID: 0143

Dioxin Tier: USGS Hydro Unit: 01090002

Site Description:

## Remediation Information (Records of Decision)

Site Name: NEW BEDFORD SITE

EPA ID: MAD980731335

Operable Unit:

ROD ID: EPA/ROD/R01-90/045 ROD Date: 04/06/90

Contaminant: ORGANICS

PCBS

METALS

LEAD

O&M Costs:

Estimated Costs:

Keys: NONE

## Abstract:

THE NEW BEDFORD SITE IS A HARBOR AREA IN THE PORT CITY OF NEW BEDFORD, MASSACHUSETTS, APPROXIMATELY 55 MILES SOUTH OF BOSTON. TWO ELECTRICAL CAPACITOR MANUFACTURING FACILITIES, THE AEROVOX FACILITY AND THE CORNELL-DUBILIER-ELECTRONICS FACILITY, ARE LOCATED ALONG THE NEW BEDFORD HARBOR AND WERE MAJOR PCB USERS FROM THE 1940S TO 1978, WHEN EPA BANNED THE USE OF PCBS. THESE MANUFACTURERS RELEASED PCB-CONTAMINATED WASTEWATER ONTO SHORELINE MUDFLATS AND INTO THE HARBOR. AS A RESULT OF THE WIDESPREAD PCB CONTAMINATION, THE STATE CLOSED THREE FISHING AREAS IN THE HARBOR IN 1979, RESULTING IN THE LOSS OF APPROXIMATELY 18,000 ACRES OF PRODUCTIVE LOBSTERING GROUND. BETWEEN 1982 AND 1985, EPA AND THE COAST GUARD POSTED WARNINGS NOTIFYING THE PUBLIC OF FISHING AND SWIMMING RESTRICTIONS. THE SITE HAS BEEN DIVIDED INTO THREE STUDY AREAS WHICH INCLUDE THE HOT SPOT AREA, THE ACUSHNET RIVER ESTUARY, AND THE LOWER HARBOR AND UPPER BUZZARDS BAY. THIS RECORD OF DECISION (ROD), THE FIRST OF TWO OPERABLE UNITS, IS AN INTERIM REMEDY AND ADDRESSES THE

5-ACRE HOT SPOT AREA, LOCATED ALONG THE WESTERN BANK OF THE ACUSHNET RIVER ESTUARY ADJACENT TO THE AEROVOX FACILITY. THIS FIRST INTERIM

ACTION OPERABLE UNIT WILL REMOVE APPROXIMATELY 48 PERCENT OF THE TOTAL PCB MASS IN THE SEDIMENT FROM THE ESTUARY PORTION OF THE SITE, WHICH IS A CONTINUING SOURCE OF CONTAMINATION THROUGHOUT THE ENTIRE SITE. A SUBSEQUENT ROD WILL ADDRESS THE REMEDIATION OF THE ACUSHNET RIVER ESTUARY AND THE LOWER HARBOR AND UPPER BUZZARDS BAY. THE PRIMARY CONTAMINANTS OF CONCERN AFFECTING THE SEDIMENT IN THE NEW BEDFORD HARBOR ARE ORGANICS INCLUDING PCBs AND METALS INCLUDING LEAD.

THE SELECTED INTERIM REMEDIAL ACTION FOR THE SITE INCLUDES DREDGING 10,000 CUBIC YARDS OF CONTAMINATED SEDIMENT, DEWATERING THE SEDIMENT USING AN EXISTING CONFINED DISPOSAL FACILITY (CDF) AND INCINERATING THE SEDIMENT ONSITE; SOLIDIFYING/STABILIZING THE RESIDUAL ASH TO IMMOBILIZE METALS, IF A LEACHING TEST INDICATES IT IS NECESSARY; TREATING EFFLUENT FROM THE DEWATERING PROCESS USING THE BEST AVAILABLE CONTROL TECHNOLOGY PRIOR TO DISCHARGE INTO THE HARBOR; AND PASSING EXHAUST GASES FROM THE INCINERATION PROCESS THROUGH AIR POLLUTION CONTROL DEVICES PRIOR TO THEIR RELEASE INTO THE ATMOSPHERE. DURING THE REMEDIAL ACTION THE SOLIDIFIED/STABILIZED ASH WILL BE TEMPORARILY STORED ONSITE, AND FOLLOWING THE COMPLETION OF THE REMEDIAL ACTION, THE ASH WILL BE STORED AND COVERED IN A SECONDARY CELL OF THE CDF. ULTIMATE DISPOSITION OF THE ASH WILL BE ADDRESSED IN THE SECOND OPERABLE UNIT. THE ESTIMATED TOTAL COST OF THIS REMEDIAL ACTION IS \$14,379,300. NO O&M COSTS WERE SPECIFIED.

PERFORMANCE STANDARDS OR GOALS: SEDIMENT AREAS WHERE PCB CONCENTRATIONS EXCEED 4,000 MG/KG (BASED ON A CANCER RISK LEVEL OF (10<sup>-6</sup>), WILL BE DREDGED AND INCINERATED.

#### Remedy:

THE SELECTED REMEDIAL ACTION FOR THE NEW BEDFORD SITE/HOT SPOT AREA IS THE HOT SPOT OPERABLE UNIT, THE FIRST OF TWO OPERABLE UNITS PLANNED FOR THE NEW BEDFORD HARBOR SUPERFUND SITE. THE HOT SPOT OPERABLE UNIT CONSISTS OF SOURCE CONTROL MEASURES, WHICH WILL ALSO CONTROL THE CONTINUING MIGRATION OF CONTAMINANTS FROM THE HOT SPOT TO OTHER PORTIONS OF THE SITE. THE MAJOR COMPONENTS OF THE HOT SPOT REMEDIAL MEASURES INCLUDE:

- \* DREDGING. APPROXIMATELY 10,000 CUBIC YARDS OF CONTAMINATED SEDIMENTS WILL BE REMOVED USING A CUTTERHEAD DREDGE. DREDGING WILL OCCUR IN THE HOT SPOT AREA AT DEPTHS OF UP TO FOUR FEET TO REMOVE SEDIMENTS WITH PCB CONCENTRATIONS OF 4,000 PPM OR GREATER. VARIOUS CONTROL OPTIONS WILL BE USED TO MINIMIZE AND CONTROL SEDIMENT RESUSPENSION.

- \* TRANSPORTATION AND DEWATERING. THE DREDGED SEDIMENTS WILL BE TRANSPORTED TO THE PILOT STUDY COVE AREA BY A FLOATING HYDRAULIC PIPELINE, WHERE THE SEDIMENTS WILL BE DEWATERED. EFFLUENT PRODUCED DURING THE DEWATERING PROCESS WILL BE TREATED TO REDUCE PCBs AND HEAVY METALS USING BEST AVAILABLE CONTROL TECHNOLOGY PRIOR TO DISCHARGE BACK INTO THE HARBOR.

- \* INCINERATION. THE DEWATERED SEDIMENTS WILL BE INCINERATED IN A TRANSPORTABLE INCINERATOR THAT WILL BE SITED AT THE PILOT STUDY COVE AREA. THE EXTREMELY HIGH TEMPERATURES ACHIEVED BY THE INCINERATOR WILL RESULT IN 99.99 PERCENT DESTRUCTION OF PCBs. EXHAUST GASES WILL BE PASSED THROUGH AIR POLLUTION CONTROL DEVICES BEFORE BEING RELEASED INTO THE ATMOSPHERE TO ENSURE

THAT APPROPRIATE HEALTH AND SAFETY AND AIR QUALITY REQUIREMENTS ARE MET.

\* STABILIZATION. FOLLOWING INCINERATION, THE TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP), A LEACHING TEST, WILL BE PERFORMED ON THE ASH TO DETERMINE IF IT EXHIBITS THE CHARACTERISTIC OF TOXICITY AND IS, THEREFORE, CONSIDERED A HAZARDOUS WASTE UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT (RCRA). IF THE TCLP TEST REVEALS THAT THE ASH IS A RCRA HAZARDOUS WASTE, THE ASH WILL BE SOLIDIFIED SUCH THAT METALS NO LONGER LEACH FROM THE ASH AT CONCENTRATIONS THAT EXCEED THE STANDARDS SET FORTH FOR DETERMINING THE TOXICITY OF A MATERIAL.

Site Name: SULLIVAN'S LEDGE

EPA ID: MAD980731343 EPA Region: 01 Metro Statistical Area: 5400

Street: HATHAWAY RD

City: NEW BEDFORD State: MA Zip: 02740

Congressional District: 04

County Code: 005 County Name: BRISTOL

National Priority List (NPL) Status: F

Proposed NPL Update Number: 01 Final NPL Update Number: 01

Ownership Indicator: OH

Federal Facility Flag: N Federal Facility Docket: F

Latitude: 4139300 Longitude: 07157300

LL Source: R LL Accuracy:

Incident Type: Incident Category: I

Resource and Recovery Act Facility: FMS SS ID: 0154

Dioxin Tier: USGS Hydro Unit: 01090002

Site Description:

#### Remediation Information (Records of Decision)

Site Name: SULLIVAN'S LEDGE

EPA ID: MAD980731343

Operable Unit:

ROD ID: EPA/ROD/R01-89/035 ROD Date: 06/29/89

Contaminant: VOCs

BENZENE

TCE

ORGANICS

PCB

PAHS

METALS

LEAD

O&M Costs: Estimated Costs:

Keys: AIR MONITORING

ARAR WAIVER

BENZENE

CAPPING

CARCINOGENIC COMPOUNDS

CLEAN AIR ACT

CLEAN WATER ACT

DIRECT CONTACT

DREDGING

DRINKING WATER CONTAMINANTS

EXCAVATION

FILLING

FLOODPLAIN

GROUND WATER

GROUND WATER MONITORING

GROUND WATER TREATMENT

INSTITUTIONAL CONTROLS

LEADS

MCLS

METALS

O&M  
ONSITE DISPOSAL  
ONSITE TREATMENT  
ORGANICS  
PAHS  
PCBS  
PLUME MANAGEMENT  
RCRA  
SAFE DRINKING WATER ACT  
SEDIMENT  
SOIL  
SOLIDIFICATION/STABILIZATION  
STATE STANDARDS/REGULATIONS  
SURFACE WATER  
SURFACE WATER COLLECTION/DIVERSION  
SURFACE WATER MONITORING  
TCE  
TOXIC SUBSTANCES CONTROL ACT  
TREATABILITY STUDIES  
TREATMENT TECHNOLOGY  
VOCs  
WATER QUALITY CRITERIA  
WETLANDS  
XYLENES

Abstract:

THE SULLIVAN'S LEDGE SITE IS A 12-ACRE DISPOSAL AREA IN AN URBAN AREA OF NEW BEDFORD, MASSACHUSETTS. THE SITE IS BORDERED BY A COUNTRY CLUB AND MARSH AREA TO THE NORTH AND SMALL BUSINESSES TO THE EAST AND WEST. THE SITE WAS OPERATED ORIGINALLY AS A GRANITE QUARRY AND INCLUDES FOUR 150 FT DEEP QUARRY PITS. BETWEEN THE 1930S AND 1970S, THE QUARRY AND ADJACENT AREAS WERE USED FOR DISPOSAL OF HAZARDOUS MATERIALS AND OTHER INDUSTRIAL WASTES. SITE INVESTIGATIONS CONDUCTED IN 1986 AND 1988 REVEALED HIGH CONCENTRATIONS OF PCBS IN SOIL AND SEDIMENT, AND VOCs AND INORGANICS IN ON-AND OFFSITE GROUND AND SURFACE WATER. SURFACE RUNOFF AND GROUND WATER FROM THE DISPOSAL AREA DISCHARGE INTO THE ADJACENT STREAM WHICH DRAINS INTO THE COUNTRY CLUB GOLF COURSE AND THE MIDDLE MARSH WETLANDS AREA. IN ADDITION, A SMALL PORTION OF THE SITE LIES WITHIN THE STREAM'S 100-YEAR FLOODPLAIN. EPA CONCLUDED THAT THE SOURCES OF CONTAMINATION ARE ONSITE SOILS, PCB-CONTAMINATED SEDIMENTS WASHED OFFSITE AND FOUND IN AN ADJACENT STREAM AND WETLAND AREAS, AND WASTES DISPOSED OF IN THE FORMER QUARRY PITS. THIS ROD ADDRESSES SOURCE CONTROL AND MANAGEMENT OF MIGRATION; A SUBSEQUENT ROD WILL ADDRESS THE MIDDLE MARSH AREA. THE PRIMARY CONTAMINANTS OF CONCERN AFFECTING THE SOIL, SEDIMENT, GROUND WATER, AND SURFACE WATER ARE VOCs INCLUDING BENZENE AND TCE; ORGANICS INCLUDING PCBS AND PAHS; AND METAL INCLUDING LEAD.

THE SELECTED REMEDIAL ACTION FOR THIS SITE INCLUDES EXCAVATION/DREDGING OF 24,200 YD<sup>3</sup> OF SOIL AND 1,900 YD<sup>3</sup> OF SEDIMENT WITH ONSITE TREATMENT USING SOLIDIFICATION, FOLLOWED BY ONSITE DISPOSAL; CONSTRUCTION OF AN 11-ACRE IMPERMEABLE CAP; AIR MONITORING; DIVERSION AND LINING OF THE STREAM ADJACENT TO SITE; ACTIVE GROUND WATER PUMPING AND PASSIVE UNDERDRAIN COLLECTION WITH TREATMENT USING

OXIDATION/FILTRATION AND UV/OZONATION WITH OFFSITE DISPOSAL OF CONTAMINATED RESIDUALS (GROUND WATER DISPOSAL WILL BE DETERMINED AFTER FURTHER STUDIES); WETLANDS RESTORATION/ENHANCEMENT; SEDIMENT, GROUND WATER, AND SURFACE WATER MONITORING; INSTITUTIONAL CONTROLS INCLUDING GROUND WATER USE AND ACCESS RESTRICTIONS. THE ESTIMATED PRESENT WORTH COST IS \$10,100,000; O&M COSTS WERE INCLUDED IN THE PRESENT WORTH COST BUT WERE NOT PROVIDED.

Remedy:

THE SELECTED REMEDIAL ACTION FOR THIS SITE INCLUDES EXCAVATION/DREDGING OF 24,200 YD3 OF SOIL AND 1,900 YD3 OF SEDIMENT WITH ONSITE TREATMENT USING SOLIDIFICATION, FOLLOWED BY ONSITE DISPOSAL; CONSTRUCTION OF AN 11-ACRE IMPERMEABLE CAP; AIR MONITORING; DIVERSION AND LINING OF THE STREAM ADJACENT TO SITE; ACTIVE GROUND WATER PUMPING AND PASSIVE UNDERDRAIN COLLECTION WITH TREATMENT USING OXIDATION/FILTRATION AND UV/OZONATION WITH OFFSITE DISPOSAL OF CONTAMINATED RESIDUALS (GROUND WATER DISPOSAL WILL BE DETERMINED AFTER FURTHER STUDIES); WETLANDS RESTORATION/ENHANCEMENT; SEDIMENT, GROUND WATER, AND SURFACE WATER MONITORING; INSTITUTIONAL CONTROLS INCLUDING GROUND WATER USE AND ACCESS RESTRICTIONS. THE ESTIMATED PRESENT WORTH COST IS \$10,100,000; O&M COSTS WERE INCLUDED IN THE PRESENT WORTH COST BUT WERE NOT PROVIDED.

Operable Unit:

ROD ID: EPA/ROD/R01-91/063 ROD Date: 09/27/91

Contaminant: VOCS

TOLUENE

OTHER ORGANICS

PAHS

PCBS

PESTICIDES

PHENOLS

METALS

LEAD

O&M Costs:

Estimated Costs:

Keys: NONE

Abstract:

THE SULLIVAN'S LEDGE SITE CONSISTS OF A 12-ACRE FORMER QUARRY SITE/DISPOSAL AREA AND 14.5 ACRES OF DOWNGRAIENT WETLANDS AREAS IN NEW BEDFORD, BRISTOL COUNTY, MASSACHUSETTS. LAND USE IN THE AREA IS PREDOMINANTLY MUNICIPAL. THE DOWNGRAIENT PORTION OF THE SITE, WHICH IS THE FOCUS OF THIS RECORD OF DECISION (ROD), INCLUDES TWO WETLANDS AREAS; A 13-ACRE WOODED WETLAND CALLED MIDDLE MARSH BORDERING THE UNNAMED STREAM AND A 1.5-ACRE WETLAND AREA 400 FEET UPSTREAM FROM MIDDLE MARSH CALLED THE "ADJACENT WETLANDS". IN ADDITION, THE SITE INCLUDES PORTIONS OF GOLF COURSE FAIRWAYS, AND ASSOCIATED FLOODPLAINS AND WATERSHED AREAS. THE ENTIRE SITE LIES WITHIN THE 25- AND 100-YEAR FLOODPLAINS OF A TRIBUTARY OF THE UNNAMED STREAM TO THE SOUTH AND THE APPONAGANSETT SWAMP TO THE NORTH. PRIOR TO 1930, 12 ACRES OF THE SITE WERE USED AS A



GRANITE QUARRY. FROM THE 1930'S TO 1970'S, THE CITY OF NEW BEDFORD ACQUIRED THE PROPERTY AND USED THE QUARRY PITS AND NEARBY AREAS WERE USED FOR DISPOSAL OF HAZARDOUS MATERIALS INCLUDING ELECTRICAL TRANSFORMERS AND CAPACITORS, FUEL OIL, VOLATILE LIQUIDS AND OTHER INDUSTRIAL WASTES.

FROM 1988 TO 1990, SEVERAL EPA INVESTIGATIONS IDENTIFIED CONTAMINATION BY PCBS AND PAHS IN SURFACE AND SUBSURFACE SEDIMENT, SOIL, AND BIOTA; AND VOCs AND INORGANICS IN GROUND WATER. CONTAMINATION HAS RESULTED IN PART FROM CONTAMINATED SEDIMENT MIGRATING FROM THE DISPOSAL AREA VIA THE UNNAMED STREAM AND DEPOSITION IN MIDDLE MARSH DURING STREAM FLOODING. A 1989 ROD FOR THE FIRST OPERABLE UNIT (OU1) ADDRESSED SOURCE CONTROL OF THE DISPOSAL AREA AND THE UNNAMED STREAM. THIS ROD ADDRESSES THE MIDDLE MARSH AS OU2. THE PRIMARY CONTAMINANTS OF CONCERN AFFECTING THE SOIL, SEDIMENT, AND SURFACE WATER ARE VOCs INCLUDING TOLUENE; OTHER ORGANICS INCLUDING PAHS, PCBS, PESTICIDES, AND PHENOLS; AND METALS INCLUDING LEAD.

THE SELECTED REMEDIAL ACTION FOR THIS SITE INCLUDES EXCAVATING AND DEWATERING APPROXIMATELY 5,200 CUBIC YARDS OF CONTAMINATED SEDIMENT AND SOIL FROM PORTIONS OF MIDDLE MARSH AND THE ADJACENT WETLANDS; SOLIDIFYING/STABILIZING THE EXCAVATED MATERIALS AS NEEDED TO COMPLY WITH RCRA LDR RULES; TREATING WATER EXTRACTED FROM EXCAVATED MATERIALS USING CARBON ADSORPTION, FOLLOWED BY ONSITE DISCHARGE TO THE UNNAMED STREAM; ONSITE DISPOSAL OF THE EXCAVATED MATERIALS BENEATH THE CAP THAT WILL BE CONSTRUCTED OVER PORTIONS OF THE DISPOSAL AREA AS PART OF OU1; RESTORING AFFECTED WETLANDS; CONDUCTING LONG-TERM ENVIRONMENTAL MONITORING; AND IMPLEMENTING INSTITUTIONAL CONTROLS TO PREVENT FUTURE RESIDENTIAL USE OF MIDDLE MARSH AND THE ADJACENT WETLANDS. IF THE DISPOSAL AREA IN OU1 HAS ALREADY BEEN CAPPED WHEN MATERIALS FROM OU2 ARE EXCAVATED AND READY FOR DISPOSAL, A CONTINGENCY REMEDY WILL BE IMPLEMENTED. THIS CONTINGENCY REMEDY INCLUDES TREATING THE EXCAVATED SOIL/SEDIMENT USING SOLVENT EXTRACTION, AND TREATING THE EXTRACTED OIL CONTAINING PCBS AND OTHER ORGANIC CHEMICALS OFFSITE USING INCINERATION; TREATING RESIDUAL WATER USING CARBON ADSORPTION; DISPOSING OF THE TREATED SEDIMENT/SOIL AT MIDDLE MARSH; RESTORING AFFECTED WETLANDS; CONDUCTING LONG-TERM ENVIRONMENTAL MONITORING; AND IMPLEMENTING INSTITUTIONAL CONTROLS TO PREVENT FUTURE RESIDENTIAL USE OF MIDDLE MARSH AND THE ADJACENT WETLANDS. THE ESTIMATED PRESENT WORTH COST FOR THIS REMEDIAL ACTION IS \$2,800,000, WHICH INCLUDES A PRESENT WORTH O&M COST OF \$164,000. THE ESTIMATED PRESENT WORTH COST FOR THE CONTINGENT REMEDY IS \$7,780,000, WHICH INCLUDES A PRESENT WORTH O&M COST OF \$164,000.

PERFORMANCE STANDARDS OR GOALS; SOIL, SEDIMENT, AND SURFACE WATER CLEAN-UP GOALS ARE BASED ON AN EXCESS LIFETIME CANCER RISK OF (10<sup>-4</sup>) TO (10<sup>-6</sup>) AND AN HI=1. THE SEDIMENT/SOIL CLEAN-UP LEVEL FOR AQUATIC AREAS IN MIDDLE MARSH IS THE INTERIM MEAN SEDIMENT QUALITY CRITERION OF 20 UG OF TOTAL PCBS PER GRAM OF CARBON (UG/GC). THIS WILL RESULT IN INTERSTITIAL WATER CONCENTRATIONS EQUAL TO OR LOWER THAN THE PCB AMBIENT WATER QUALITY CRITERIA OF 0.014 UG/L. THE SEDIMENT/SOIL CLEAN-UP LEVEL FOR NON-AQUATIC AREAS IN MIDDLE MARSH AND FOR THE ADJACENT WETLAND IS TOTAL PCBS 15 MG/KG. THIS WILL PROTECT MAMMALS FROM CHRONIC ADVERSE EFFECTS FROM WETLAND/TERRESTRIAL EXPOSURE TO CONTAMINATED SEDIMENT/SOIL.

Remedy:

THE SELECTED REMEDIAL ACTION FOR THE SULLIVAN'S LEDGE SITE MIDDLE MARSH OPERABLE UNIT CONSISTS OF THE FOLLOWING SOURCE CONTROL COMPONENTS;

- \* SITE PREPARATION;
- \* EXCAVATION OF CONTAMINATED SEDIMENTS AND SOILS FROM PORTIONS OF MIDDLE MARSH AND THE ADJACENT WETLANDS;
- \* DEWATERING OF THE EXCAVATED MATERIALS;
- \* DISPOSAL OF THE MATERIALS BENEATH THE CAP THAT WILL BE CONSTRUCTED OVER PORTIONS OF THE DISPOSAL AREA OF THE SULLIVAN'S LEDGE SITE;
- \* RESTORATION OF THE AFFECTED WETLANDS;
- \* INSTITUTIONAL CONTROLS TO PREVENT FUTURE RESIDENTIAL USE OF MIDDLE MARSH AND THE ADJACENT WETLAND; AND
- \* LONG-TERM ENVIRONMENTAL MONITORING.

BECAUSE IMPLEMENTATION OF THE SELECTED REMEDY IS DEPENDENT UPON THE SULLIVAN'S LEDGE DISPOSAL AREA BEING AVAILABLE FOR DISPOSAL OF MIDDLE MARSH SEDIMENTS AND SOILS, A CONTINGENCY REMEDY HAS ALSO BEEN SELECTED CONSISTING OF THE FOLLOWING COMPONENTS;

- \* SITE PREPARATION;
- \* EXCAVATION OF CONTAMINATED SEDIMENTS AND SOILS FROM PORTIONS OF MIDDLE MARSH AND THE ADJACENT WETLAND;
- \* TREATMENT OF THE EXCAVATED SEDIMENTS BY SOLVENT EXTRACTION; AND TREATMENT OF THE CONCENTRATED OIL EXTRACT BY OFF-SITE INCINERATION;
- \* DISPOSAL OF TREATED SEDIMENT/SOILS AT MIDDLE MARSH;
- \* RESTORATION OF THE AFFECTED WETLANDS;
- \* INSTITUTIONAL CONTROLS TO PREVENT FUTURE RESIDENTIAL USE OF THE RESTRICT ACCESS TO MIDDLE MARSH AND THE ADJACENT WETLAND; AND
- \* LONG-TERM ENVIRONMENTAL MONITORING.

~~Site Name: NORWOOD PCBS~~

EPA ID: MAD980670566 EPA Region: 01 Metro Statistical Area: 1120

~~Street: NEAR RTE 1 & DEAN STREET~~

~~City: NORWOOD~~ State: MA Zip: 02062

Congressional District: 09

County Code: 021 County Name: NORFOLK

National Priority List (NPL) Status: F

Proposed NPL Update Number: 02 Final NPL Update Number: 02

Ownership Indicator: PR

Federal Facility Flag: N Federal Facility Docket: F

Latitude: 4211360 Longitude: 07112000

LL Source: G LL Accuracy:

Incident Type: Incident Category: M

Resource and Recovery Act Facility: FMS SS ID: 0151

Dioxin Tier: USGS Hydro Unit: 01090001

Site Description:

~~PRIV. OWNED 25 ACRE INDUST. PARK. SITE PRIMARILY USED FOR ELEC. MANUFACTURING 1947 - 70. INCLUDES TRANSFORMERS. CONTAMS INCLUDE BENZENE, TOLUENE, ETHYLBENZENE, AND TCE IN SOILS, SW, AND AIR. GW IS FOR MUNI/INDUST AND PRIVATE SUPPLIES.~~

~~Remediation Information (Records of Decision)~~

Site Name: NORWOOD PCBS

EPA ID: MAD980670566

Operable Unit:

ROD ID: EPA/ROD/R01-89/043 ROD Date: 09/29/89

Contaminant: SOIL

SEDIMENT

GROUNDWATER

O&M Costs: Estimated Costs:

Keys: AIR STRIPPING

CARBON ADSORPTION

CARCINOGENIC COMPOUNDS

CLEAN AIR ACT

CLEAN WATER ACT

DEBRIS

DECONTAMINATION

DIRECT CONTACT

EXCAVATION

FLOODPLAIN

GROUND WATER

GROUND WATER MONITORING

GROUND WATER TREATMENT

METALS

MCLS

ONSITE DISCHARGE

ONSITE DISPOSAL

ONSITE TREATMENT

O&M

ORGANICS

PAHS

PCBS

PCE

PHENOLS